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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,906	03/29/2001	Alireza Raissinia	CISCP672	9028

26541 7590 06/30/2005

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EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/822,906	RAISSINIA ET AL.	
	Examiner	Art Unit	
	Ian N. Moore	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The indicated allowability of claims 3,4,7,8,11,12,15 and 16 are withdrawn in view of the newly discovered reference(s). Rejections based on the newly cited reference(s) follow.

2. Claims 1-20 are rejected by the new ground(s) of rejection.

Drawings

3. The drawings (FIG. 1-6) are objected to because the labels and lines unclear to read, and a second drawing for a "subscriber unit" is **missing a legend** such as "FIG. 2" or "FIGURE 2".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1,5,9,13,17-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,6,10,15,21,25,30,31 of U.S. Patent No. 6,657,949. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1,5,9,13,17-20 of the instant application merely broadens the scope of the claims 1,6,10,15,21,25,30,31 of the Patent by eliminating the elements (i.e. zero values to reserved said second group for data, time domain symbols, contiguous to one another) and their functions of the claims. It has been held that the omission an element and its function is an obvious expedient if the remaining elements perform the same function as

before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd.App.1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Claim Objections

6. Claim 4 is objected to because of the following informalities: claim 4 recites, acronym "DOCSIS" in line 2. It is suggested to fully describe the acronym when reciting for the first time in the claim. Appropriate correction is required.

First set of rejection

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1,2,5,6,9,10,14 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ryan (US006333937B1).

Regarding Claim 9, Ryan discloses an apparatus for operating a subscriber unit (see FIG. 1, Remote Station R0 or R1) to request access (see FIG. 1, access

request) to a common transmission medium (see FIG. 1, wireless network; see col. 4, lines 60-67; OFDM wireless network), said apparatus comprising:

a MAC layer processor (see FIG. 1-3, R0 or R1's MAC layer; see col. 5, lines 50-60) that receives an exclusive assignment to a toneset (see FIG. 4 A, C, D, Tones; see col. 5, lines 15-20; see col. 6, lines 25-50) within an OFDM burst structure (see col. 6, lines 20-50; OFDM burst) and

an access request burst formation block (see FIG. 2, a combined system of logic 202,regirsters 242,178,180, and transmission portion of remote station, or FIG. 3, R0) that transmits an OFDM burst (see col. 6, lines 20-50; OFDM burst) using tones specified by said assignment while leaving other tones in said OFDM burst available for use by other subscriber units (see col. 5, lines 15-20; col. 6, lines 4-50; each tones are specifically/exclusively assigned to each remote station), and

wherein said OFDM burst comprises an access request OFDM burst (see col. 5, lines 1-10, OFDM common access channel burst).

Regarding Claim 1, the method claim, which has substantially disclosed all the limitations of the respective apparatus claim 9. Therefore, it is subjected to the same rejection.

Regarding Claim 2, Ryan discloses converting said OFDM burst into the time domain prior to transmitting said OFDM burst (see col. 4, lines 35-45; frequency to time conversion).

Regarding Claim 13, Ryan discloses an apparatus for operating a central access point (see FIG. 1, Base Station Z0) to control access to a common

transmission medium (see FIG. 1, wireless network; see col. 4, lines 60-67; OFDM wireless network), said apparatus comprising:

a MAC layer processor (see FIG. 1, Base Station's MAC layer; see col. 6, lines 4-15) that sends an exclusive assignment to a toneset (see FIG. 4 A, C, D, Tones; see col. 5, lines 15-20; see col. 6, lines 25-50) within an OFDM burst structure (see col. 6, lines 20-50; OFDM burst) to a selected subscriber unit (see FIG. 1-3, remote station R0 or R1); and

a request access processor (see FIG. 2, a combined system of allocation manager 215, registers 200,221,240,241, table 230, and receiving portions of Base station Z0) that receives an access request OFDM burst that includes said toneset as transmitted from said selected subscriber unit (see col. 4, lines 60 to col. 5, lines 20; see col. 6, lines 25-50); and

wherein in response to said access request OFDM burst, said MAC layer processor assigns at least one time slot to said selected subscriber unit for use of said common transmission medium (FIG. 4 A, C, D, the combined system assigns/allocates time slots for subscriber; see col. 4, lines 60 to col. 5, lines 20; col. 5, lines 15-20; see col. 6, lines 25 to col. 7, lines 6).

Regarding Claim 5, the method claim, which has substantially disclosed all the limitations of the respective apparatus claim 13. Therefore, it is subjected to the same rejection.

Regarding claim 6, Ryan discloses wherein said access request OFDM burst includes access request information from subscriber units other than said selected subscriber unit (see col. 5, lines 15-20).

Regarding Claim 10, the claim, which has substantially disclosed all the limitations of the respective claim 2. Therefore, it is subjected to the same rejection.

Regarding Claim 14, the claim, which has substantially disclosed all the limitations of the respective claim 6. Therefore, it is subjected to the same rejection.

Regarding Claim 17, the apparatus claim, which has substantially disclosed all the limitations of the respective apparatus claim 9. Therefore, it is subjected to the same rejection.

Regarding Claim 18, the apparatus claim, which has substantially disclosed all the limitations of the respective apparatus claim 13. Therefore, it is subjected to the same rejection.

Regarding Claim 19, the computer product claim, which has substantially disclosed all the limitations of the respective apparatus claim 9. Therefore, it is subjected to the same rejection.

Regarding Claim 20, the computer product claim, which has substantially disclosed all the limitations of the respective apparatus claim 13. Therefore, it is subjected to the same rejection.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 3,7,11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan in view of Beser (US006847635B1).

Regarding claim 3, Ryan discloses transmitting OFDM burst signals as described above in claim 1. Ryan does not explicitly disclose termination of a silent period in a voice call. However, Beser teaches wherein transmitting said request signals termination of a silent period in a voice call (see col. 2, lines 26-44).

In view of this, having the system of Ryan and then given the teaching of Beser, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Ryan, by sending request message termination of a silent period in a voice call, as taught by Beser. The motivation to combine is to obtain the advantages/benefits taught by Beser since Beser states at col. 1, line 60-67 that such modification would accurately and quickly transmit voice call from a user to another user by utilizing the data packet carrying ability of network.

Regarding Claim 7, the claim, which has substantially disclosed all the limitations of the respective claim 3. Therefore, it is subjected to the same rejection.

Regarding Claim 11, the claim, which has substantially disclosed all the limitations of the respective claim 3. Therefore, it is subjected to the same rejection.

Regarding Claim 15, the claim, which has substantially disclosed all the limitations of the respective claim 3. Therefore, it is subjected to the same rejection.

11. Claims 4,8,12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan in view of Hartman (US 20020101946A1).

Regarding claim 4, Ryan discloses transmitting OFDM burst comprises transmitting said burst in a time slot determined by MAC layer protocol (see FIG. 3-4, OFDM time slot by MAC layer; see col. 5, lines 15-60; col. 6, lines 25-50).

Ryan does not explicitly disclose DOCSIS. However, Beser teaches wherein transmitting herein transmitting said OFDM burst comprises transmitting said burst in a time slot determined by a DOCSIS MAC layer protocol (see page 1, paragraph 4,5,7; see page 3, paragraph 33,38; see page 4, paragraph 49; see page 5, paragraph 64-65; Table 1-2, transmitting OFDM burst in a time slot in accordance DOCSIS MAC).

In view of this, having the system of Ryan and then given the teaching of Hartman, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Ryan, by utilizing DOCSIS MAC standard, as taught by Hartman. The motivation to combine is to obtain the advantages/benefits taught by Hartman since Hartman states at page 1, paragraph 10-11; see page 5, paragraph 64; that such modification would transmit voice over

wireless network that can utilized the existing OFDM infrastructure without substantially and costly changes.

Regarding Claim 8, the claim, which has substantially disclosed all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Regarding Claim 12, the claim, which has substantially disclosed all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Regarding Claim 16, the claim, which has substantially disclosed all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Second set of rejection

12. Claims 11,2,5,6,9,10,14 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by McFarland (US006628673B1).

Regarding Claim 9, McFarland discloses an apparatus for operating a subscriber unit (see FIG. 3, nodes such as phone 100, organizer 200 or laptop 300) to request access to a common transmission medium (see FIG. 1, a transmission medium; see col. 4, lines 10-36, 50-55; request/requirement access to allocate for a transmission medium), said apparatus comprising:

a MAC layer processor (see FIG. 3, a combined system of 320, 340 and 330 with MAC layer processing in accordance IEEE 802.11, WLAN; see col. 7, lines 10-40) that receives an exclusive assignment to a toneset (see FIG. 3, sub-channel/frequency/symbols/tones 250; see col. 1, lines 44-50;see col. 4, lines 22-32;

55-64; sub-channel/frequency/symbols/tones 250) within an OFDM burst structure (see col. 4, lines 4-9; 50-60; OFDM channel/burst) and

an access request burst formation block (see FIG. 2, a combined system of 350 and 320) that transmits an OFDM burst (see col. 4, lines 4-9; 50-60; OFDM channel/burst) using tones specified by said assignment while leaving other tones in said OFDM burst available for use by other subscriber units (see FIG. 5; see col. 4, lines 50-67; col. 6, lines 3-42; each sub-channel/frequency/symbols/tones are specifically/exclusively assigned to each station, and setting other sub-channel/frequency/symbols/tones to zero for other stations), and

wherein said OFDM burst comprises an access request OFDM burst (see col. 4, lines 4-9; 50-60; see col. 5, lines 50-56; OFDM channel/burst request access for allocation).

Regarding Claim 1, the method claim, which has substantially disclosed all the limitations of the respective apparatus claim 9. Therefore, it is subjected to the same rejection.

Regarding Claim 2, McFarland discloses converting said OFDM burst into the time domain prior to transmitting said OFDM burst (see col. 4, lines 1-60; FFT, Fast Fourier Transform between frequency and time).

Regarding Claim 13, McFarland discloses apparatus for operating a central access point (see FIG. 3, Base Station 400) to control access to a common transmission medium (see FIG. 1, a transmission medium; see col. 4, lines 10-36,

50-55; request/requirement access to allocate for a transmission medium), said apparatus comprising:

a MAC layer processor (see FIG. 3, a combined system of 420, 440 and 430 with MAC layer processing in accordance IEEE 802.11, WLAN; see col. 7, lines 10-40) that sends an exclusive assignment to a toneset (see FIG. 3, sub-channel/frequency/symbols/tones 250; see col. 1, lines 44-50;see col. 4, lines 22-32; 55-64; sub-channel/frequency/symbols/tones 250) within an OFDM burst structure (see col. 4, lines 4-9; 50-60; OFDM channel/burst) to a selected subscriber unit (see FIG. 3, nodes such as phone 100, organizer 200 or laptop 300); and

a request access processor (see FIG. 2, a combined system of 450 and 420) that receives an access request OFDM burst that includes said toneset as transmitted from said selected subscriber unit (see col. 4, lines 60 to col. 5, lines 20; see col. 6, lines 25-50); and

wherein in response to said access request OFDM burst, said MAC layer processor assigns at least one time slot to said selected subscriber unit for use of said common transmission medium (see FIG. 3 and 5;, the combined system assigns/allocates time slots for a node/laptop; see col. 4, lines 60 to col. 5, lines 20; col. 5, lines 15-20; see col. 6, lines 25 to col. 7, lines 6).

Regarding Claim 5, the method claim, which has substantially disclosed all the limitations of the respective apparatus claim 13. Therefore, it is subjected to the same rejection.

Regarding claim 6, McFarland discloses wherein said access request OFDM burst includes access request information from subscriber units other than said selected subscriber unit (see col. 4, lines 35-65; see col. 6, lines 1-35).

Regarding Claim 10, the claim, which has substantially disclosed all the limitations of the respective claim 2. Therefore, it is subjected to the same rejection.

Regarding Claim 14, the claim, which has substantially disclosed all the limitations of the respective claim 6. Therefore, it is subjected to the same rejection.

Regarding Claim 17, the apparatus claim, which has substantially disclosed all the limitations of the respective apparatus claim 9. Therefore, it is subjected to the same rejection.

Regarding Claim 18, the apparatus claim, which has substantially disclosed all the limitations of the respective apparatus claim 13. Therefore, it is subjected to the same rejection.

Regarding Claim 19, the computer product claim, which has substantially disclosed all the limitations of the respective apparatus claim 9. Therefore, it is subjected to the same rejection.

Regarding Claim 20, the computer product claim, which has substantially disclosed all the limitations of the respective apparatus claim 13. Therefore, it is subjected to the same rejection.

13. Claims 3,7,11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over McFarland in view of Beser (US006847635B1).

Regarding claim 3, McFarland discloses transmitting OFDM burst signals as described above in claim 1. McFarland does not explicitly disclose termination of a silent period in a voice call. However, Beser teaches wherein transmitting said request signals termination of a silent period in a voice call (see col. 2, lines 26-44).

In view of this, having the system of McFarland and then given the teaching of Beser, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of McFarland, by sending request message termination of a silent period in a voice call, as taught by Beser. The motivation to combine is to obtain the advantages/benefits taught by Beser since Beser states at col. 1, line 60-67 that such modification would accurately and quickly transmit voice call from a user to another user by utilizing the data packet carrying ability of network.

Regarding Claim 7, the claim, which has substantially disclosed all the limitations of the respective claim 3. Therefore, it is subjected to the same rejection.

Regarding Claim 11, the claim, which has substantially disclosed all the limitations of the respective claim 3. Therefore, it is subjected to the same rejection.

Regarding Claim 15, the claim, which has substantially disclosed all the limitations of the respective claim 3. Therefore, it is subjected to the same rejection.

14. Claims 4,8,12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McFarland in view of Hartman (US 20020101946A1).

Regarding claim 4, McFarland discloses transmitting OFDM burst comprises transmitting said burst in a time slot determined by MAC layer protocol (see FIG. 5, OFDM time slot via MAC layer; see col. 7, lines 10-40; col. 4, lines 4-9; 50-60).

McFarland does not explicitly disclose DOCSIS. However, Beser teaches wherein transmitting herein transmitting said OFDM burst comprises transmitting said burst in a time slot determined by a DOCSIS MAC layer protocol (see page 1, paragraph 4,5,7; see page 3, paragraph 33,38; see page 4, paragraph 49; see page 5, paragraph 64-65; Table 1-2, transmitting OFDM burst in a time slot in accordance DOCSIS MAC).

In view of this, having the system of McFarland and then given the teaching of Hartman, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of McFarland, by utilizing DOCSIS MAC standard, as taught by Hartman. The motivation to combine is to obtain the advantages/benefits taught by Hartman since Hartman states at page 1, paragraph 10-11; see page 5, paragraph 64; that such modification would transmit voice over wireless network that can utilized the existing OFDM infrastructure without substantially and costly changes.

Regarding Claim 8, the claim, which has substantially disclosed all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Regarding Claim 12, the claim, which has substantially disclosed all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Regarding Claim 16, the claim, which has substantially disclosed all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Response to Arguments

15. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM

6/24/05

BOB PHUNKULH
PRIMARY EXAMINER